WHAT IS CLAIMED IS:

1. A flat-panel display apparatus comprising:

first display control means for controlling to display in a normal display mode; and

second display control means for controlling to display in a power saving display mode.

2. The apparatus according to claim 1, wherein said second display control means can control to select one of a power saving mode that suffers less deterioration of image quality, and a power saving mode that suffers some deterioration of image quality.

3. The apparatus according to claim 2, further comprising:

instruction input means for inputting an instruction indicating transition to the power saving mode, and

wherein when the power saving mode is automatically set, the power saving mode that suffers less deterioration of image quality is started, and when the power saving mode is started in response to the instruction input by said instruction input means, one of the power saving mode that suffers less deterioration of image quality, and the power saving mode that suffers some deterioration of image quality can be started.

4. The apparatus according to claim 1, wherein the power saving mode can achieve power savings by

controlling at least a display element drive current amount of a flat panel.

5. The apparatus according to claim 1, wherein the power saving mode can achieve power savings by changing at least a drive PWM clock of a flat panel.

6. The apparatus according to claim 1, wherein the power saving mode can achieve power savings by controlling at least brightness in correspondence with a display screen position under the display control weighted depending on a display position of a flat panel.

7. The apparatus according to claim 6, wherein power savings can be achieved by setting a screen peripheral portion at a lower brightness level than a screen central portion.

8. The apparatus according to claim 1, wherein the power saving mode can achieve power savings by controlling at least an average emission luminance level of a flat panel.

9. The apparatus according to claim 1, wherein the power saving mode can achieve power savings by controlling at least a drive voltage of a flat panel.

10. The apparatus according to claim 9, wherein the drive voltage control of the flat panel can achieve power savings by controlling at least an output voltage of a high-voltage power supply that drives the flat panel.

11. The apparatus according to claim 9, wherein the drive voltage control of the flat panel can achieve power savings by lowering at least an absolute value of the drive voltage of a row interconnect that selects a display element to be driven.

12. The apparatus according to claim 9, wherein the drive voltage control of the flat panel can achieve power savings by lowering at least a drive voltage of a column interconnect that selects a display element to be driven.

13. The apparatus according to claim 1, wherein the power saving mode can achieve power savings by controlling an emission luminance level of a flat panel by computing image display information.

14. The apparatus according to claim 13, wherein when an input display signal is a digital signal, the control of the emission luminance level of the flat panel can achieve power savings by controlling the emission luminance level of the flat panel by setting a low luminance signal by decreasing the number of signal bits of the input signal by bit shift.

15. The apparatus according to claim 13, wherein power savings can be achieved by controlling output luminance data by multiplying output luminance control data of an input display signal by a predetermined value.

16. The apparatus according to claim 1, wherein the power saving mode can achieve power savings by controlling drive electric power of a flat panel by changing a screen size.

17. The apparatus according to claim 1, wherein transition to the power saving mode takes place by executing at least one of power saving control processes, which include:

(a) control of a PWM clock frequency of a flat panel;

(b) control of brightness in correspondence with a display screen position under display control weighted depending on a display position of the flat panel;

(c) control of an average emission luminance level of the flat panel;

(d) control of a drive voltage of the flat panel;

(e) change control of the PWM clock frequency of the flat panel;

(f) control of consumption power of the flat panel by computing display information;

(g) control of a display screen size of the flat panel; and

(h) control of a drive current of display elements of the flat panel.

18. A method of controlling a flat-panel display apparatus, wherein one of a normal display mode which

controls to display in a normal display mode, and a power saving display mode which controls to display in a power saving display mode can be selected.

19. The method according to claim 18, wherein the power saving display mode can control to select one of a power saving mode that suffers less deterioration of image quality, and a power saving mode that suffers some deterioration of image quality.

20. The method according to claim 19, wherein an instruction indicating transition to the power saving mode can be input, and

when the power saving mode is automatically set, the power saving mode that suffers less deterioration of image quality is started, and when the power saving mode is started in response to the input instruction, one of the power saving mode that suffers less deterioration of image quality, and the power saving mode that suffers some deterioration of image quality can be started.

21. The method according to claim 18, wherein the power saving mode can achieve power savings by controlling at least a display element drive current amount of a flat panel.

22. The method according to claim 18, wherein the power saving mode can achieve power savings by changing at least a drive PWM clock of a flat panel.

23. The method according to claim 18, wherein the power saving mode can achieve power savings by controlling at least brightness in correspondence with a display screen position under the display control weighted depending on a display position of a flat panel.

24. The method according to claim 23, wherein power savings can be achieved by setting a screen peripheral portion at a lower brightness level than a screen central portion.

25. The method according to claim 18, wherein the power saving mode can achieve power savings by controlling at least an average emission luminance level of a flat panel.

26. The method according to claim 18, wherein the power saving mode can achieve power savings by controlling at least a drive voltage of a flat panel.

27. The method according to claim 26, wherein the drive voltage control of the flat panel can achieve power savings by controlling at least an output voltage of a high-voltage power supply that drives the flat panel.

28. The method according to claim 26, wherein the drive voltage control of the flat panel can achieve power savings by lowering at least an absolute value of the drive voltage of a row interconnect that selects a display element to be driven.

29. The method according to claim 18, wherein the power saving mode can achieve power savings by controlling an emission luminance level of a flat panel by computing image display information.

30. The method according to claim 18, wherein the power saving mode can achieve power savings by controlling drive electric power of a flat panel by changing a screen size.

31. The method according to claim 18, wherein transition to the power saving mode takes place by executing at least one of power saving control processes, which include:

(a) control of a PWM clock frequency of a flat panel;

(b) control of brightness in correspondence with a display screen position under display control weighted depending on a display position of the flat panel;

(c) control of an average emission luminance level of the flat panel;

(d) control of a drive voltage of the flat panel;

(e) change control of the PWM clock frequency of the flat panel;

(f) control of consumption power of the flat panel by computing display information;

(g) control of a display screen size of the flat panel; and

(h) control of a drive current of display elements of the flat panel.

32. The method according to claim 26, wherein the drive voltage control of the flat panel can achieve power savings by lowering at least a drive voltage of a column interconnect that selects a display element to be driven.

33. The method according to claim 32, wherein the power saving mode can achieve power savings by controlling an emission luminance level of the flat panel by computing image display information.

34. The method according to claim 33, wherein when an input display signal is a digital signal, the control of the emission luminance level of the flat panel can achieve power savings by controlling the emission luminance level of the flat panel by setting a low luminance signal by decreasing the number of signal bits of the input signal by bit shift.

35. The method according to claim 33, wherein power savings can be achieved by controlling output luminance data by multiplying output luminance control data of an input display signal by a predetermined value.

36. The method according to claim 33, wherein the power saving mode can achieve power savings by controlling drive electric power of the flat panel by changing a screen size.

37. A computer program sequence executed in a flat-panel display apparatus which comprises a computer for making display control in accordance with a program, and can control to select one of a power saving mode that suffers less deterioration of image quality, and a power saving mode that suffers some deterioration of image quality,

said computer program sequence implements the step of making a display mode transit to the power saving mode that suffers less deterioration of image quality

when the power saving mode is automatically set, and to one of the power saving mode that suffers less deterioration of image quality, and the power saving mode that suffers some deterioration of image quality when the power saving mode is started in response to an instruction input, and

said computer program sequence implements transition control to the power saving mode by executing at least one of power saving control processes, which include:

(a) control of a PWM clock frequency of a flat panel;

(b) control of brightness in correspondence with a display screen position under display control weighted depending on a display position of the flat panel;

(c) control of an average emission luminance level of the flat panel;

(d) control of a drive voltage of the flat panel;

(e) change control of the PWM clock frequency of the flat panel;

(f) control of consumption power of the flat panel by computing display information;

(g) control of a display screen size of the flat panel; and

(h) control of a drive current of display elements of the flat panel.

38. The computer program sequence according to claim 37, wherein the power saving mode can achieve power savings by controlling an emission luminance level of the flat panel by computing image display information.

39. The computer program sequence according to claim 38, wherein power savings can be achieved by controlling output luminance data by multiplying output luminance control data of an input display signal by a predetermined value.

40. A computer readable storage medium storing a computer program sequence of claim 38.

41. A computer readable storage medium storing a computer program sequence of claim 39.

42. A computer readable storage medium storing a computer program sequence of claim 40.